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THE QUALITY OF AMERICAN HIGH SCHOOL GRADUATES: WHAT PERSONNEL OFFICERS SAY AND DO ABOUT IT.

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The Center

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three research programs to achieve its objectives. The School Organization Program investigates how school and classroom organization affects student learning and other outcomes. Current studies focus on parental involvement, microcomputers, use of time in schools, cooperative learning, and other organizational factors. The Education and Work Program examines the relationship between schooling and students' later-life occupational and educational success. Current projects include studies of the competencies required in the workplace, the source of training and experience that lead to employment, college students' major field choices, and employment of urban minority youth. The Delinquency and School Environments Program researches the problem of crime, violence, vandalism, and disorder in schools and the role that schools play in delinquency. Ongoing studies address the need to develop a strong theory of delinquent behavior while examining school effects on delinquency and evaluating delinquency prevention programs in and outside of schools.

The Center also supports a Fellowships in Education Research program that provides opportunities for talented young researchers to conduct and publish significant research and encourages the participation of women and minorities in research in education.

This report, prepared by the Education and Work Program, is the first in a series analyzing The Johns Hopkins University Survey of American Employers. This report examines the survey responses of 1,912 employers to determine their concerns and actions in regard to the quality of high school graduates.

Abstract

The Johns Hopkins University Survey of American Employers is a unique set of data that contains information about the recruiting and employment practices of the employers of a sample of National Longitudinal Survey of high school graduates. Thus the data set can be analyzed to trace the education-to-work experiences of the sample from their initial survey in 1972 to their current placement in the work force.

This paper examines high school quality as revealed in the responses of personnel officers and in their actual recruiting and employment practices. The analyses test the hypothesis, recently proposed by senior executives of Fortune 1300 firms and by the National Commission Report, A Nation at Risk, that poor quality education of American high school graduates contributes to the declining ability of American companies to compete with foreign businesses.

Several pieces of evidence contradict this hypothesis. Only five percent of the personnel officers surveyed report problems with graduates not having basic skills or problems finding qualified high school graduates for the jobs they have available. In analyses that examine employers' practices of recruitment and employment, little evidence is found that employers are concerned about high school graduates' grades or the quality of the high schools that they attend. Instead, more important factors appear to be dependability and proper attitudes.

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Introduction

There are two conflicting ideas about the nature of the American educational system today. The first is that American public schools, especially high schools, are failing in quality. The second is that America is an overeducated society--too many Americans have too many years of school completed, too many have high school diplomas and college degrees. The glut of well educated people competing for more jobs than the society can offer has prompted some economists to argue that the economic return for schooling is no longer sufficient to justify foregoing participation in the labor market in order to increase one's education.

The highly publicized National Commission Report "A Nation at Risk" (1983), argues for a direct connection between the decline in the United States economy vis-a-vis the world and the declining quality of American schools. American manufacturers of everything from women's clothing to computers are unable to hold their share of the American market in the face of foreign competition. A Nation at Risk argues that this to a great extent is due to poor schooling of American high school graduates.

This view is widely shared. Education Week (1983) described a poll of senior executives of a random sample of Fortune 1300 firms, and noted that "a stunning 90% agreed that unless American students are required to meet higher educational standards, it will be impossible for U.S. corpo-

rations to compete with foreign countries in the future." The poll found "exactly 0% of the business leaders believe teachers are doing an 'excellent' job in elementary and secondary schools today" and "only 6% rate their performance as very good." But this survey cannot be taken as convincing evidence. The answers in any opinion survey reflect the respondents' personal values, and these executives' views are not based on economic analysis of worker productivity. Top executives of large corporations are not directly involved in hiring high school graduates. For example, 62% of these executives favored tuition tax credits. It is hard to see what data source or personal experience could have convinced them that tuition tax credits would help their corporation to compete with foreign firms. When Education Week notes that "By a resounding majority of 82% to 17%, (business executives) believe prayer should be allowed in a classroom," it is even harder to see this as reflecting anything more than personal values.

This paper tests the hypothesis that American business is suffering because of the quality of education received by American high school graduates by examining survey responses of personnel officers and other people who hire American high school graduates in the private sector. The survey includes small employers as well as large corporations, and includes top executives only when they themselves are directly responsible for the hiring of new employees.

Our basic hypothesis is that if better-quality high schools are needed by American industry, then we will encounter numerous complaints about the shortage of well-educated high school graduates and evidence of strong competition for those few students who are well educated. No matter how bad American high schools are today, a number of high school graduates are indeed well educated; and employers should be making a special effort to locate them if they are needed. Similarly, no matter how bad the average American high school is, some high schools are clearly of high quality. Those who are responsible for employment should be sensitive to this and on the look-out for the graduates of these schools.

Survey Sample and Survey Procedures

Our sample of firms was obtained from data provided by employees who had at least a high school diploma and were in their mid-twenties. In 1972, 20,000 high school seniors in a nationally representative sample of public and private secondary schools were surveyed. This survey, called the National Longitudinal Study, repeatedly resurveyed these same students after graduation in order to develop a longitudinal portrait of their post-high school careers. Our employer survey constructed a sample of firms by selecting all black and Hispanic respondents and a sample of the remaining respondents and recording the type of jobs they held and the names of their employers in the third follow-up

survey (in 1976, four years after they finished high school) and the fourth follow up survey (in 1979, seven years after high school). The survey sample is thus a group of firms which employed a national sample of American 22-year-old high school graduates in 1976 and 25-year-old high school or college graduates in 1979. The employers range in size from the very largest corporations to a variety of small businesses.

Each employer was contacted by telephone in order to obtain the name of the person who would be typically responsible for hiring employees holding positions like those held by the respondents of the National Longitudinal Study. The employer was not told that an employee of the firm had been surveyed. If the NLS respondent were employed in a branch office of a national or international firm, that branch office was contacted, so for most large corporations a variety of different personnel officers in different locations around the United States were surveyed. In cases where the employer was a service station, grocery store, or other very small business, it was often the owner who made employing decisions.

The person responsible for employment was surveyed with a mailed questionnaire in the summer of 1983 that asked a variety of questions about how the firm went about recruiting and employing personnel. The original sample consisted of 5493 employers. Of these, 1912 (34%) returned their questi-

onnaires. (An additional 41% were interviewed by telephone or completed a shorter mailed questionnaire after failing to complete the questionnaire initially sent to them. Those respondents are not included in this analysis, because the questions of particular interest to us were omitted from the shorter mail questionnaire and the telephone survey.)<*>

Results

One of our survey questions addresses directly the issue of the quality of high schools. If young people are not as well educated as they should be, employers should observe a shortage of the kind of employable candidates that they need. Of course, managers instinctively adjust their goals in the light of the candidates available. Nevertheless, if there were a distinct shortage of persons with particular or specialized skills, one might expect this to show up. In the questionnaire, employers were asked "How difficult is it to find the kinds of new employees you need...?" About a third (32%) of employers say they have problems filling at least a significant minority of their jobs; however, when asked about the educational level required for these difficult-to-fill positions, four out of five employers mentioned positions requiring at least some college. Thus, only about five percent of all the employers surveyed said that there was a shortage of qualified candidates and that this

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<*> The response rates given here are tentative.

shortage was most severe among high school graduates.

The questionnaire also addresses high school quality by demonstrating how personnel officers and other managers refer to or use educational qualifications and quality of schooling when they evaluate high school graduates who have applied for employment.

The questionnaire raises the issue of school quality in a completely unobtrusive manner. We did not ask personnel officers directly for their opinions about the importance of high school education, or whether they feel that high schools are declining in quality. Thus, respondents were not aware that they were contributing information which would permit one to draw conclusions about high school quality.

Our first analysis compares how personnel officers react to high school graduates and how they react to college graduates. However, no single respondent was actually asked to make even an indirect comparison of college graduate applicants and high school graduate applicants. Instead, information was gathered through a technique called the randomized vignette questionnaire (Nosanchuk, 1972; Rossi et al., 1974, Alexander and Becker, 1978).

The mail questionnaire was primarily devoted to questions about the ways in which employers recruit and hire employers for a particular "sample job;" namely the position held by

the adolescent (NLS) respondent who had worked for this firm. Later in the questionnaire, we switched to a different series of questions, which comprise the vignette, as follows:

V. A TYPICAL HIRING EXPERIENCE

> Earlier, we asked about one particular sample job which may not be a typical job in your organization. In this section, we would like to ask you about a job position of your own choosing. Consider the following person, who has just been hired by your organization:
>
> Mr. William Foster was a walk-in applicant. He is a high school graduate who attended an inner-city high school. He is 27 years old and white. Now please suggest a typical position in which this person might be employed and answer the following questions about how he was hired for this position.

The client was then asked for 21 brief responses about the kind of position this person might hold and what the process/decision to hire him might have entailed.

In fact, the hiring scenario cited here is only one of 40 different scenarios. Other respondents were offered a different description of Mr. William Foster (or a Ms. Mary Foster). Vignettes varied along six dimensions:

SEX: male versus female;

RACE: black versus white;

SOURCE: walk-in applicant vs. someone recommended by another employer;

EDUCATIONAL LEVEL: college versus high school; and for high school graduates only

AGE: 19 years vs. 27 years old;

QUALITY OF HIGH SCHOOL: an "inner-city high school" vs. a "suburban school with a good reputation;"

Figure 1 shows the 40 possible vignettes generated by this design.

Figure 1 about here

Because the vignettes are randomly assigned to different employers, the group of employers who received a questionnaire describing a college graduate applicant are no different (except for random errors of sampling) from those who received a questionnaire describing a high school graduate. Since neither group of respondents would be aware that their responses would be compared to other employers who received a different vignette, there is no reason to believe that they would be sensitive to the school quality issue. On its face, the questionnaire was about how firms make personnel decisions. Table 1 shows the socioeconomic status of occupations assigned by employers according to the type of vig-

nette they received -- whether the vignette described a white or black male or female and whether the person was a college graduate or a 27-year-old high school graduate. (Employers receiving the vignettes describing 19-year-old year-old high school graduates are omitted from this table.)

Table 1 about here

Because the number of respondents receiving each type of vignette was controlled by random assignment, the number of responses was similar in each of the eight categories of Table 1 (bottom half). The slight discrepancies that did exist seem to fit a pattern--there are 9-10% fewer responses from employers who received a "black college graduate" vignette than from employers who received a "white college graduate" vignette. We hypothesize that some employers had difficulty imagining a black college graduate in their firm, while others may have been worried that we were investigating their affirmative action policy.

Each occupation assigned by employers was scored on a socioeconomic index (SEI), a scale from 0 to 100 based upon the mean income and the mean educational attainment of persons holding these positions. Table 1 shows that, presented with the vignettes, employers naturally assigned college graduates to jobs which were higher in social status than were positions assigned to high school graduates.

Among high school graduates, women (and especially black women) tend to have higher socioeconomic index positions than men. This probably reflects the fact that females are employed in clerical and other office positions, many of which are relatively high status occupations even though salaries are low. The difference in the SEI index between high school graduate candidates and college graduate candidates is greatest for white males. White male college graduates have slightly higher socioeconomic indexes than do other applicants, while white male high school graduates have the lowest SEI scores.

These data do not necessarily indicate racial or gender prejudice on the part of the respondents. The SEI of white male college graduates is not significantly higher than the SEI of the other groups. And black high school candidates are customarily assigned slightly higher prestige positions than white candidates. The fact that the means for the different categories are not identical does show that the respondents reacted in different ways to the different sex-race groups, but it remains a matter of judgment as to what these differences in reaction mean.

Each respondent was asked "How much weight would be placed on various factors in the evaluation of this employee? For example, would unusually strong letters of recommendation from previous employers have been a very important point in this applicant's favor, a moderately

important point, or are letters from previous employers not important for this position?" This question was then repeated for six other phrases. The next question read "We would also like to know what factors would work against an applicant. For example, would a long period of unemployment on a candidate's work record or a police record be very harmful, moderately harmful, or do you not use this sort of information in evaluating a candidate?"

Table 2 shows, for high school and college graduates, the percentage of respondents rating a positive trait as a "very important" point in the applicant's favor and the percentage of respondents rating a negative factor as "very harmful" to an applicant's chances.

Table 2 about here

The most important difference between the employers' responses in describing the hiring of a high school graduate and the hiring of a college graduate is the importance attached to grades, which was fifth in importance for college graduates and sixth for high school graduates. Although 25% of the respondents said that strong school grades would be an important factor in the employment of a college graduate, only 12% said this about a high school graduate. For high school graduates, strong school grades are less important than scores on a written test and, for males, hardly more important than a strong military record. The

differences are not as great for other items, but the consistent pattern is that any positive trait is rated as very important in more cases with college applicants than with high school applicants. Impression of the interview, character references, and letters from previous employers are all more often important for college graduates than for high school graduates.

What does it mean when more employers rate particular factors as more important for one class of applicants than for another? The probable answer is that the additional positive information is more needed for one group than the other, for several reasons. The information may be more relevant to the particular position being filled or more relevant in evaluating this particular kind of candidate. We believe this is the case with school grades. College grades are more relevant predictors of a college graduate's work potential than are high school grades for a high school graduate. For other items which are more often named as very helpful for college graduate applicants, these items may be considered more important, more valuable, because there is a higher risk attached to employing someone who is going to occupy a more important position in the firm.

Table 3 shows the answers to the same question for college and high school graduate applicants in each of the four race/sex groups.

Table 3 about here

Strong school grades are significantly more important for college graduates than for high school graduates in all four categories. There are a number of other differences in the table. There is a striking tendency to be unimpressed by strong letters of recommendation from previous employers for white female high school graduates. If many of the positions that white female high school graduates are hired for are rather cut and dried bureaucratic tasks, this perhaps means that other information, such as scores on a typing test, are sufficient. This may also mean that the absence of letters, like the presence of a long period of unemployment, is less of a handicap for a white female high school graduate, who is permitted to have lost time from the work place in order to rear children.

A strong recommendation from a firm manager is important for all classes of applicants, although especially so for black females (perhaps because they have the greatest disadvantage in terms of sex and race, they may benefit most from an "inside track" on the position). Character references are more important for males than they are for females.

The most important point this table illustrates is that regardless of race or sex, college grades are allways a good deal more important than high school grades. HIgh school grades are most important for white females, suggesting that grades are more relevant in predicting the performance of

women in clerical and secretarial tasks.

Employers were also asked "If you were the person making the decision to hire this candidate, what is the most important information you would need before hiring this person?" The respondents' answers were then sorted into 52 different responses, with a maximum of four different responses coded for each respondent.

Table 4 shows the frequency with which a dozen different phrases or concepts were used in evaluating college graduate and high school graduate applicants in each race/sex category.

Table 4 about here

Again, the most striking difference is the frequency of references to educational background for college graduates compared to high school graduates. The differences are quite large for spontaneous references to school grades and also to all other references to educational background.

The next most important difference between college graduate and high school graduate applicants is the frequency with which phrases are used for college graduates which imply that the candidate is being considered for a highly specialized position requiring previous training. Thus, there are more references to qualifications for the particular position, for having the necessary skills for the posi-

tion, or for having had actual experience in this work. All these factors tend to be correlated with the social status of the position--the higher the SEI, the more likely these phrases are to be mentioned.

The last three spontaneous comments reported in Table 4 are all more often mentioned in connection with high school graduates than with college graduates and they are generally associated with lower status jobs. For high school graduates it is important that the respondent have a good attitude (no back talk) is dependable (comes to work regularly) and is moral (doesn't steal the company equipment). Dependability is more of an issue with males and attitude most often an issue with black male high school graduates.

Because the responses have been so finely divided, no single phrase is mentioned by more than a fraction of all respondents. However, the open-ended question here could have been replaced by a battery of 52 individual questions asking each respondent to state the importance of each of these phrases or concepts. Had this been done, the percentage who said that any particular phrase was important would have been much greater than the percentage who spontaneously volunteered it. Thus we can confidently interpet even the small numbers in these data as being meaningful.

Although it is rarely mentioned, potential for growth or for promotion is mentioned most often for white male college graduates and never for white male high school graduates.

One phrase which seems to have different meanings depending on the race of the applicant is "ability to deal with the public." For whites, this is a phrase mentioned in the evaluation of high school graduates and presumably refers to their ability to work behind a counter, a typical high school graduate position. It is not used for white college graduates as often, perhaps because this minimal skill in human relations is taken as given. For blacks, the relationship is exactly opposite. It is rarely mentioned as a characteristic for black high school graduates. Perhaps they will either not be hired to deal with the public or else they will only deal with the black public. For black college graduates the assumption is probably being made that these candidates have to deal with a white clientele. The phrase "deal with the public" may simply translate into the ability to relate comfortably with whites.

The same may be true of references to personality--black male college graduates and white high school graduates are the ones where this phrase is most often used. The reference to personality and to appearance is most frequently made in connection with white female high school graduates, which suggests that the hiring of secretaries because they are attractive is not totally a thing of the past. The fact that in three cases out of four personality and appearance are more important for black college graduates than for black high school graduates may be because the black college graduate, male or female, would have to associate with white

executives.

How employers react to applicants from different kinds of high schools

American public schools are comprehensive--thus, almost by definition, it is not possible to label high schools by their level of academic quality. All high schools are supposed to be able to provide the same education and to a surprising extent do so. Even the poorest inner-city high school often has courses in computers and calculua; it always has courses in physics and chemistry. But schools do vary greatly in the kind of student they serve. The considerably racial and socioeconomic segregation of neighborhoods in the United States means that where a school is located will tell a good deal about the quality of students attending it, even though it may not give much indication of the character of the curriculum. But because the quality of school is strongly influenced by the quality of the student body, most people perceive schools in high income areas as being better than those in low income areas. Hence, it is possible to develop vignettes which would distinguish between quality of high school. For half of our high school graduates, the vignette described them as graduates of an "inner-city high school." The other half were described as graduates of a "suburban school with a good reputation."

If quality of high school education matters, then the quality of the high school should matter. Graduates of

suburban schools should be treated in much the way that graduates of college are treated--they should be seen as scarce resources, to be recruited aggresively and given the best jobs.

Table 5 shows the socioeconomic status of the occupation which respondents selected as appropriate for high school graduates of each race and sex from each type of high school. In this table 19-year-old applicants are included as well as 27-year-olds.

Table 5 about here

The first and by far most important point is that for whites there simply is no difference in the positions awarded to inner-city graduates and suburban graduates. Apparently there are not good positions reserved for white graduates of good high schools, which means that being a graduate from a good high school is of no value in the labor market.

Earlier we saw that little attention was paid to the grades that high school graduates obtained in school. One might hypothesise that employers do not evaluate candidates on the basis of grades because schools vary too greatly in their grading standards. A "C" in a good school is worth more than an "A" somewhere else. But here we see that the quality of school itself also makes no difference. We seem to have obtained rather firm evidence that quality of high

school education is not relevant in today's business.

High school graduates are now being hired for the bottom jobs in the society. Eighty-seven percent of men and women aged 25-30 have high school diplomas. Over half of all young workers have more education than that--one or more years of college or specialized training in a postgraduate vocational school. Thus the high school is the training ground for students going into the bottom positions in the society, and for those positions the quality of training in courses in mathematics, science, and literature seems not to be relevant.

But Table 5 shows a markedly different pattern for blacks. For both sexes, but significantly for males, graduates of suburban schools are assumed to belong in higher positions. But this may not be simply a matter of quality of schooling. The black who attended a central city school is assumed to have attended a segregated school; we think most respondents assume the "suburban school with a good reputation" to be predominantly white. The black candidate from a predominantly white educational environment is thus seen as a more valuable employee. The same pattern appears in the next two tables.

Table 6 shows the importance that employers attach to the various strengths and weaknesses in the applications of candidates from inner-city and suburban schools. The data again are presented separately for each race/sex group.

Table 6 about here

White males from suburban schools are helped by a strong military record, and perhaps hindered by difficulties with the police. It may be that employers react to the word suburban by wondering why a white male graduate from a good school is not in college. A military record provides a reasonable explanation, while difficulties with the law confirm their worry about the candidate.

For blacks, there are two important differences for males. First, it is less necessary for the black male suburban high school graduate that a manager inside the firm be able to place his personal recommendation in support of the candidate. Second, the black male suburban high school graduate's school grades are taken much more seriously. These differences imply that a black male who has attended a suburban high school is viewed as having a record of performance outside a segregated ghetto--his school grades mean more because he has been tested in competition against white students. A recommendation from a trusted corporation manager is more necessary for the graduate of an inner-city school because the candidate cannot be expected to have recommendations and work experience outside the ghetto. In effect, the candidate has not proved himself in the world in which the typical personnel officer lives.

We see the same pattern when we look at the spontaneous comments made by employment officers. Because the sample sizes are small we have included some responses which have only nonsignificant differences in Table 7 in order to obtain a clear picture.

Table 7 about here

Consistent with the pattern in Table 6, three-quarters of the significant differences in Table 7 apply to blacks. For black males it again seems that suburban graduates are being evaluated more seriously and they are being considered for positions where they will have to deal with a white public. Thus their qualifications for a particular position play a role and their performance in an interview and their "personality" are important. Similarly, for black women, personal appearance plays a more more important role for suburban graduates. In contrast, the most important consideration for inner-city graduates seems to be whether they can read, write and communicate (females) and whether they are "bright" or "intelligent" (males). For inner-city males, there is a concern whether they can follow directions, a phrase used by respondents in connection with lower-status occupations. The ninth significant difference, the greater mention of non-work references for inner-city black females, has no obvious interpretation.

The three differences which reach significance for whites

are not easy to interpret. The respondent considering a suburban white male mentions "enthusiasm" more often, while the respondent evaluating an inner-city candidate mentions personal appearance. Perhaps he thinks of inner-city males as looking like the characters from Westside Story. For suburban white females there is more reference to a work-related test.

Apparently the role that employers expect the suburban school to play with these candidates is not to provide them with a superior education, but to serve as a sorting and socializing mechanism. Black males from the suburbs have been socialized to be more comfortable around whites. They perhaps have a more middle class background; they presumably are less likely to be members of an inner-city gang.

For women, and especially white women, growing up in the city is not taken as a sign that the candidate has a bad attitude or might be a trouble-maker. Responses of the employers do not suggest that they are worried about rebellious or hostile attitudes on the part of inner-city black females. The mentions of communication and reading/writing skills suggest that the employer's main worry is that they may not have received a sufficient basic education to be able to read and write or speak without a heavy dialect.

Responses to all three questions--the occupation selected for the candidate, the weighting given to the nine specified factors, and the open-ended responses--are consistent. None

indicate that employers are particularly concerned with the quality of high school education. The only concern with cognitive skill appears in the open-ended references to black females, and here the reference is to minimal basic skills--the kind taught in elementary school rather than high school.

How employers use educational credentials in evaluation of candidates

At another point in the questionnaire the respondents were asked a number of questions about how they selected candidates for a specified position (the position held by the National Longitudinal Survey respondent who had originally identified the firm as his place of work). Asked what information they use in the normal evaluation of candidates, only 12% of the employers say they use school grades. Eighteen percent say they use school references and 11 percent say they consider the reputation of the school. At the same time, 25% say they use written tests to evaluate candidates and 38% say that the level of education is relevent to their decision. Thus, level of education, meaning the number of years of school completed, is considered important and scores on a written test, presumably measuring basic skills, are often important. But school grades themselves are not used very often. In sum, we see little evidence that employers in selecting high school graduates are concerned about their school grades or the quality of the high school

they attend.

In the employer questionnaire, employers were also asked, with reference to the position held by the respondent in the original National Longitudinal Study, what importance was attached to various personal traits of employees. Table 8 shows the responses given.

Table 8 about here

The one trait considered indispensable by nearly all managers or personnel officers is dependability--coming to work regularly and on time. Next most important are proper attitudes about work and supervisors--in other words, being able to accept supervision. Third most important is being able to get along well with people--being good team members. Just below this and rated very highly by nearly 2/3 of all employers was being "able to read materials about as difficult as the daily newspaper;" that is, having basic adult literacy. Only slightly below this, over half of all employers want employees who are "able to accurately add, subtract, multiply and divide"--that is, able to perform basic arithmetic.

But of the 16 specific factors named, being able to "handle complex numerical calculations" (excellent at math) is rated important by only one out of nine employers and being "able to read complex materials" (advanced readers) is rated not much higher. The only other two factors which are rated as low are related essentially to the ability to perform at

supervisory levels, something rarely required of employees at this low-level position in the firm. (The NLS respondents are no more than 25 years old; almost none of them could possibly have completed college and obtained several years of experience so as to qualify for even a junior management position.) Thus employers talking about young high school graduates are seriously concerned about their achievement of skills at an elementary school or middle school level. They want students who can read and do arithmetic. There seems to be no market for the more advanced reading and scientific skills which high schools take seriously and which A Nation at Risk refers to repeatedly.

At another point in the questionnaire the managers and personnel officers were asked again about reading and math skills for high school graduates; 52% say that "we always" or "often...find that recent high school graduates do have the reading and math skills to work here." This implies that about half do not often find this to be the case. Yet only 6% say that they have "often set up their own instruction in basic reading and math skills to fill learning gaps in our own workers," and only 2% say that they have "often found it necessary to redesign or simplify the reading or math requirements of jobs because of weaknesses of our workers in these areas." It is hard to know what to make of these answers. Perhaps there is a basic literacy problem in the population, but the evidence does not seem very strong that this is the case.

Conclusions

Both the A Nation at Risk report and the survey of Fortune 1300 executives referred to earlier explicitly argue for a direct connection between the supposed decline in high school quality, the dropping of standards for high school graduation, and the difficulties being experienced by the American economy. But this survey of employers of American high school graduates provides no evidence to support the contention that American industry is suffering because the high school graduates it is hiring are inadequately educated. Certainly there is little evidence that employers need high school graduates with trignometry, calculus, physics, chemistry, foreign languages, or the skilled ability to comprehend literature.

Perhaps the colleges need these skills as prerequisites for the advanced training that they give to prospective corporate managers and scientists, but this is not the issue that has been raised. College presidents are not being quoted about the decline in the quality of their undergraduates, nor is anyone complaining about the inadequacy of education being provided by engineering schools. There is not even a complaint that the society is preparing too few college graduates. Rather than talking about a shortage of prospective managers and engineers, there is more discussion of the over-educated society--of unemployed M.B.A.'s and chemical engineers. Perhaps the American high school is

declining in quality; this report makes no effort to consider that question. But if there is a decline in high school quality there is no evidence here that this is of great concern to American industry. Only a small number of employers complain because they have difficulty hiring people with minimal skills in reading, writing and arithmetic.

Some readers may argue that this analysis is somewhat beside the point. The charge that the American economy is being destroyed by the failure of the high school may not be true, but it was never intended to be taken that seriously. Rather the schools do need to be improved but for a variety of reasons; if blaming the decline of the American automobile industry on the schools is a way to raise funds to enhance school quality, then perhaps this is merely a convenient "white lie" which will do no harm in the long run and will in fact be beneficial. This then leaves us with the important question: why did the Fortune 1300 executives so overwhelmingly endorse the need for high school reform?

We think it is important to bear in mind that the executives interviewed in these very large corporations would have had very little reason to actually know about the quality of the cognitive skills of their low level employees. If very few corporations have changed their work specifications in order to hire workers with lower reading abilities and few put in their own educational programs to counter the illiteracy of newly hired workers, it is unlikely that cor-

porate executives would have been involved in discussions with lower level supervisors about the literacy of their low level employees.

We should view the responses of these corporation executives not as informed judgments made by a profit-maximizing manager who has analyzed the data from his own firm, but rather as opinions expressed by high status, highly intelligent and well educated individuals about the quality of the American high school. Similar responses would probably come from other high status individuals in the society--bankers, congressmen, corporation lawyers, scientists, leaders in the church. We do not know why top executives react negatively to school quality today. Many negative feelings may be drawn from their own experiences with their own children in high school. Others may be struggling to make some comparison between what high school was like when they were students and what high school is like today. If so, it cannot be stressed too strongly that the high schools have changed in one very important way.

Schools perform three functions: they educate, they socialize, and they sort. The American high school is no longer performing a sorting function: nine persons out of ten graduate from high school now, which means that students with very poor reading and math ability, who at one time quit school to go to work, now remain in school without necessarily overcoming their basic skills deficiencies. Two

decades ago an employer could expect a high school graduate to read and write and today he is often disappointed when he meets high school graduates who cannot. He may have forgotten that two decades ago most of the employees he hired would not have been high school graduates. He did not expect basic literacy from people who did not finish high school and if he compares the whole labor force of a generation ago to his entire labor force today he might not find much difference in the overall cognitive qualities.

Twenty years ago the National Opinion Research Center developed a measure of basic knowledge which included the question "What is the name of the ocean which lies between the United States and England?" Most readers of that report were surprised at the large number of people who did not know the answer. We do not think that there is reason to believe that the number of people who do not know the name of that ocean has increased in the last 20 years. What has increased is the number of those people who have high school diplomas.

This survey does show that employers do wish the schools would teach basic math and basic reading skills to every student. The high schools have little experience teaching remedial work because they have only recently begun teaching students that they were not confronted with 20 or even 10 years ago. If there is a problem with the high school in failing to teach foreign languages, in failing to teach

advanced mathematics, in allowing easy courses in drama to be substituted for more difficult courses in literature, it does not appear in these questionnaires. Perhaps college faculty are unhappy because their students are not as well read as they once were (although this may also simply reflect the fact that more students are attending college, and schools are not as selective as they once were). But employers have no concern in these areas.

If the high school has failed it may be that it has failed by doing something well. By trying to educate students that it once pushed out of school, it has lost its ability to serve as a simple sorting device.

What is the meaning of the phrase "a high school diploma no longer means anything?" There is no evidence that high schools are not teaching people as well as they once did. We think the problem is that a high school diploma is no longer being withheld from students of low ability or people with social and behavioral problems. When half of the workers in the United States had high school degrees and half did not, the diploma was a simple way to sort candidates for positions. Now when 87% of twenty-five to thirty-year olds have high school diplomas, the presence or absence of the degree does not mean as much as it did. If this is the case, then American high schools may be receiving a great deal of criticism because of their success.

Citations

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Figure 1: The 40 Vignettes in the Employer Questionnaire

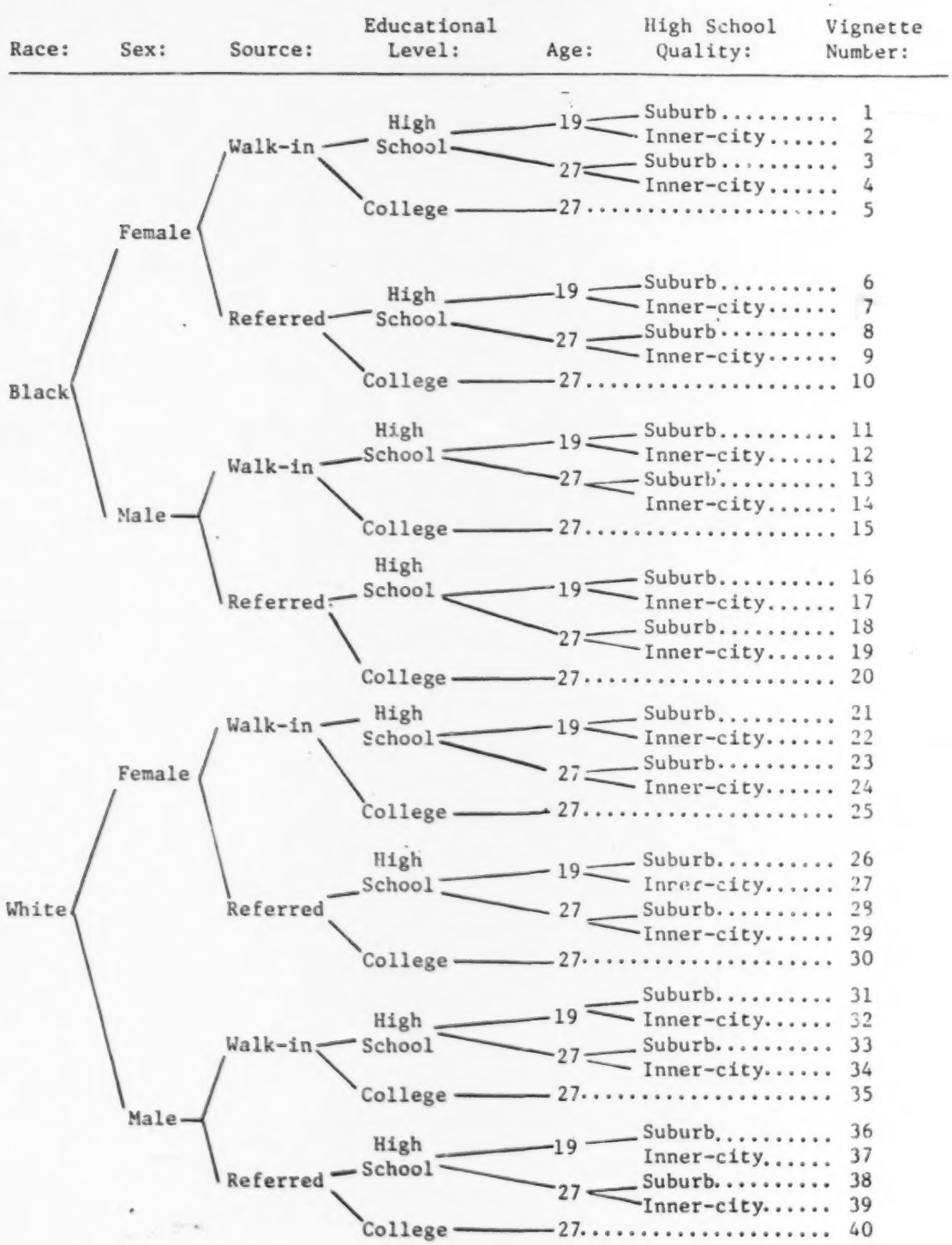

Table 1

Status of Positions chosen for college and high school graduates, by race and sex

(age 27 only)

(mean socioeconomic status)

Race, Sex:	College Graduate	High School Graduate
White male	61*	32
Black male	58*	35
white female	58*	38
Black female	56*	44

*College-high school difference is significant, $p < .05$.

Note: Number of cases of

	College Graduate (age 27)	High School Graduate (age 27)	High School Graduate (age 19)**	Total
White male	100	96	110	306
Black male	91	99	107	297
White female	102	107	103	312
Black female	92	100	108	300
				1,215

**These cases not used in this table

Table 2

Importance of Positive and Negative Factors in the hiring of high school and college graduates; 27-year-olds

	(Percent of employers rating factor as "very important")	
Positive factors	College Graduates	High School Graduates
strong personal impression in interview	85%	76%
strong recommendation from manager in firm who knows candidate personally	58%	56%
strong letters from previous employers	45%	39%
strong letters of character reference	32%	27%
strong school grades	25%	12%
strong score on a written test	19%	18%
strong military record (males only)	7%	11%
Negative factors	(Percent of employers rating factor as "very harmful")	
long period of unemployment	7%	7%
police record	44%	43%

* H.S.-college difference significant, $p < .05$

Note: N's for "military record" are 187 and 193; other N's range from 380 to 403.

Table 3

Importance of Positive and Negative Factors in
Hiring High School and College Graduates, by Race and Sex

(percent of employers rating factor "very important")

	White Male		Black Male		White Female		Black Female	
Positive factors	College Graduate	High School Graduate	College Graduate	High School Graduate	College Graduate	H.S. Graduate	College Graduate	H.S. Graduate
strong personal impression	83%	78%	85%	78%	87%*	77%	84%	72%
strong recommendation from manager	56	58	56	54	54	50	64	60
strong letters from employers	41	40	50	43	39*	29	50	46
strong character reference	34	38	38*	28	25*	18	32	23
strong school grades	24*	12	21*	11	25*	16	29*	9
strong test scores	16	12	23	17	20	21	17	21
strong military record	8	10	7	12*	--	--	--	--
Negative factors	(percent of employers rating factor "very harmful")							
unemployment	3	8	9	4	10*	0	8	16
police record	56	50	40	39	37	41	42	42

*college-high school difference significant, $p < .05$

Table 4

Spontaneous Comments of Employers about High School and College Graduates

Candidate Characteristics	White Male		Black Male		White Female		Black Female	
	College	High School	College	High School	College	High School	College	High School
Educational Background	*16.8	6.9	*14.1	3.3	[1]16.5	8.8	11.3	6.3
School Grades	*9.5	0	4.7	2.2	*4.1	0	*10.0	0
Qualifications	*13.7	3.4	8.2	6.6	*12.4	4.9	11.3	7.4
Skills for Job	*18.9	9.2	20.0	15.4	16.5	19.6	21.3	17.9
Experience in this Job	22.1	16.1	20.0	16.5	*21.6	12.7	*25.0	10.5
Growth Potential	*3.2	0	0	1.1	2.1	2.0	3.8	3.2
Stable	0	*3.4	1.2	2.2	*3.1	0	*5.0	1.1
Deal with Public	1.1	3.4	*4.7	0	3.1	5.9	7.5	3.2
Personality	5.3	5.7	7.1	3.3	3.1	*10.8	10.0	5.3
Appearance	2.1	5.7	3.5	5.5	4.1	*11.8	8.8	4.2
Attitude	9.5	10.3	5.9	*17.6	7.2	[1]13.7	10.0	6.3
Dependable	7.4	*19.5	8.2	*17.6	5.2	*14.7	6.3	11.6
Moral	7.4	12.6	1.2	*7.7	7.2	6.9	6.3	8.4

*$p < .05$ for high school vs. college difference (two-tailed test)

[1]$p < .1$ for high school vs. college difference (two-tailed test)

Note: N's range from 80 to 102.

Table 5

Status of Positions Chosen for Inner City and Suburban High School Graduates by Race and Sex

	(Mean Socioeconomic Index)	
	Inner City	Suburb
Race, Sex		
White Male	30	29
Black Male	28	35*
White Female	40	38
Black Female	42	45

*$p < .05$

Table 6

Factors Important to the Hiring of 19 Year Old High School Graduates Examining Differences due to sex, race, and school location.

Factors Favoring Employment	White Male		White Female		Black Male		Black Female	
	Suburban	City	Suburban	City	Suburban	City	Suburban	City
Letters from Employers	39.6	35.1	41.2	36.5	38.5	32.7	31.4	40.4
In-House Recommendation	56.4	53.6	47.1	50.0	*50.00	68.5	56.9	55.4
Strong Grades	18.9	17.9	8.2	13.5	*23.1	10.7	20.0	17.5
Character References	28.3	31.6	20.0	23.5	28.8	26.8	26.0	18.2
Military	*13.2	1.8	--	--	9.6	3.6	--	--
Written Test	15.7	13.2	30.0	29.4	19.2	10.7	26.5	28.8
Interview Impression	76.4	75.4	80.4	78.8	84.6	75.0	82.7	84.2
Factors Limiting Employment								
Unemployment	9.1	6.9	7.5	5.9	5.8	10.9	8.0	7.1
Police Record	41.8	33.3	34.6	45.1	43.1	53.7	40.4	35.1

TOTAL N = 451

*p $\leq$ .05

Note: N's range from 49 to 57.

Table 7

Spontaneous Comments of Employers about Candidates from Central City and Suburban Schools

	White Male		Black Male		White Female		Black Female	
	Suburb	City	Suburb	City	Suburb	City	Suburb	City
Interview	11.8 (51)	15.1 (53)	*17.6 (51)	6.0 (50)	12.2 (49)	13.3 (45)	7.8 (51)	13.0 (54)
Qualifications	9.8	5.7	*5.9	0	4.1	6.7	2.0	0
References-other	11.8	20.8	5.9	(1) 14.1	(1) 18.4	8.9	3.9	*16.7
References-work	13.7	11.3	13.7	18.0	18.4	22.2	7.8	(1) 16.7
Previous employment	31.4	30.2	33.3	36.0	32.7	37.8	21.6	(1) 33.3
School references	(1) 3.9	0	(1) 3.9	0	2.0	4.4	2.0	1.9
Personality	3.9	3.8	*7.8	0	6.1	4.4	7.8	7.4
Appearance	3.9	*15.1	3.9	4.0	8.2	8.9	*17.6	5.6
Follow directions	(1) 3.9	0	0	*6.0	2.0	2.2	0	1.9
Bright, intelligent	7.8	5.7	2.0	*10.0	6.1	6.7	3.9	1.9
Reading/Writing	0	1.9	3.9	2.0	2.0	0	0	*5.6
Communicate	2.0	1.9	0	2.0	2.0	0	0	*9.3
Police check	2.0	0	0	(1) 4.0	0	2.2	0	0

*$p \leq .05$

(1) $p \leq .1$

Note: N's range from 49 to 54.

Table 8

Candidate Traits that Employers Consider Extremely Important; N = 1283

	Percent "Extremely Important"
Dependable (Q25N)	94
Proper Attitude (Q25M)	82
Good Team Members (Q25L)	74
Basic Adult Literacy (Q25D)	65.2
Good Judgment (Q25O)	62.1
Quick Learner (Q25C)	57.1
Basic Arithmetic (Q25F)	56.5
Client Relations (Q25I)	40.2
Manual Dexterity (Q25B)	39.1
Methodical (Q25A)	37.3
Permanence (Q25J)	34.8
Specialized Knowledge (Q25H)	32.5
Advanced Reading (25E)	22.3
Growth Potential (Q25K)	22.2
Can Supervise (Q25P)	16.4
Excellent at Math (Q25G)	10.8
Other (Q25Q)	.0.1